DYSMENORRHŒA;

ITS TREATMENT BY DILATATION.

BY

WILLIAM WARREN POTTER, M.D.,

BUFFALO, N. Y.

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DYSMENORRHŒA; ITS TREATMENT BY DILATATION.[1]

ANY departure from the normal performance of the menstrual function may so materially affect the health of woman—nay, does oftentimes so greatly disturb her whole mental, physical, and social being—that it becomes at once interesting and important to discuss any methods and means which may be offered, whereby the equilibrium of this great physiological balance-wheel of the female economy may be restored when once it becomes upset or thrown out of gear. The management of these disorders is, moreover, a subject of paramount importance to the general practitioner, since these cases more commonly fall under the observation of the family doctor. It is so, at all events, in their initial or earlier stages; only exceptionally, and when there is some great or unusual severity attached to them which has resisted the ministrations of the regular family attendant, do they consult the specialist.

There is neither the charm of novelty in the subject, nor yet great originality in the form of its presentation, and, leaving the uncertain field of pathology for the most part behind, I shall crave the ear of the Society for a few moments only in the consideration of the therapeutics—particularly the mechanical therapeutics—which are applicable more especially to the neurotic variety of dysmenorrhœa.

The fact that these questions have often been con-

[1] Read before the Medical Society of the State of New York.

sidered before seems not to detract from their interest or importance, for, I asseverate, it is only by iteration and reiteration, by filing, and refining, and pruning, and recasting, that we can expect to arrive at truth in questions of practice which are, as yet, not fully understood, or, mayhap, greatly misunderstood.

Until quite lately it has generally been held that forcible dilatation of the cervical canal should be resorted to only in cases where there is found some mechanical obstacle to the exit of the menstrual fluid, as, *e.g.*, in stenosis or flexures of the uterus. Or, to state the case in another way, the beneficial effects of forcible rapid dilatation of the cervix uteri have been limited, in the minds of a majority of the profession at least, to those cases in which there was found some mechanical obstruction of the uterine orifices, either internal or external. Those who still hold that there is generally some mechanical barrier to the flow in painful menstruation are not a few; those who believe that anteflexions of the womb furnish a considerable proportion of these cases are many; while still a goodly number of medical men are of the opinion, that if the uterine sound can be readily passed into the cavity, there need be no occasion to dilate the canal for dysmenorrhœa. Now the writer has somewhat gradually reached the opinion, that the pain bears no especial relation to the calibre of the channel of exit in the virgin uterus.

Dr. Otis has demonstrated pretty conclusively, that strictures of large calibre in the male urethra are sources of infinite trouble and anxiety, in the management of diseases of the male genito-urinary apparatus, that the reflexes which they produce are manifold, and that the true method of relief consists in restoring the channel to its normal calibre throughout its whole length. Furthermore, we are taught that each particular case is a law unto itself as regards size, that each urethra is to be dilated according to its own necessities, and that no

one case furnishes a guide as to the amount of dilatation required for the next. While it is true that the structures of the two localities are not absolutely alike, nor are the functions of the organs precisely the same, yet there is sufficient parallelism in both structure and function to furnish an analogous deduction as to cause and effect, and to afford some practical suggestions for the relief of the cases in question.

With regard to the bearing anteflexions have upon dysmenorrhœa, the views of the more experienced observers appear to have undergone considerable modification within the last few years. Formerly it was quite generally believed that anteflexion, especially when the angle was anywise acute, stood in the positive relation of cause to the malady in question ; that the bending of the uterine canal formed a valve-like barrier to the exit of the menstrual secretion, hence the painful contractions of the uterine muscular fibres, in the effort of the organ to rid itself of the imprisoned fluid.

An objection to this theory, among others, is that a great number of women who have anteflexion of the womb, even when the elbow is quite abrupt, do not suffer with dysmenorrhœa ; nor, in those cases which do so suffer, does the disease always yield to the straightening of the organ ; while, on the other hand, dysmenorrhœa associated with anteflexion is sometimes cured without straightening the uterus. These facts, together with many others which need not be mentioned now, tend to show that when the two conditions coexist they do not necessarily bear the relations of cause and effect, but rather those of coincidence. My own observations lead me to the corroboration of this latter conclusion.

But there are other complications of dysmenorrhœa, which becloud and overshadow the real malady, in such a manner as to render the primary suffering insignificant, or of quite secondary importance, while, at the same time, they obscure the diagnosis and are misleading as

to treatment. I refer to those mysterious reflex phenomena which have been so aptly named hystero-neuroses. The value of mechanical dilatation in these cases is, in my opinion, very great. I have seen a patient, thirty-five years old, married but sterile, who for a number of years was obliged to take to her bed several days during each menstrual epoch on account of both pain and nausea, but particularly because of the nausea, entirely relieved of all discomfort by dilatation of the cervix—this, too, when there was no flexure or other malposition of the womb, nor stenosis, but great hyperæsthesia at the internal os, which was the sole discoverable fault.

That form of dysmenorrhœa which is usually described as spasmodic, and which is, moreover, generally complicated with a reflex neurosis of some form or other, offers an especial field for the employment of the dilator. The true pathology of these cases it may be difficult to explain, but they almost invariably present great hyperæsthesia at the inner os, and when this sensitive point is reached or touched by the dilator it is almost sure to provoke a manifestation of the same reflex phenomena, though in a less degree, which occur at the ordinary menstrual periods. These latter, however, are usually of short duration, generally subsiding immediately upon, or very soon after, the withdrawal of the instruments.

Whatever be the causes of this morbid sensibility at the point described, it seems quite certain that it plays an important part in the etiology of the form of dysmenorrhœa in question, for when it is overcome or blunted by the use of the dilators the malady itself is either benefited or removed. So, too, with the reflex phenomena, such as intense nausea, gastralgia, headache, hysteria, and other neuroses, for they also subside with the same promptness when the dilator has accomplished its work. Whereas, therefore, the menstrual week has heretofore been ushered in with backache, headache, nausea,

and a most distressing general malaise, which has finally culminated in agonizing pain in the pelvic organs, the whole molimen occupying from five to ten days, we now find that the subject is often taken with the flow unawares, even while on the street or at an evening party, and passes through the entire epoch with very little or no physical suffering. This is no fanciful sketch or exaggeration of the facts, for I have seen the like over and over again, and am constantly meeting with parallel cases in practice—cases which have resisted all the usual measures adopted for their relief, but which have readily yielded when dilatation has been thoroughly and systematically employed.

It is scarcely necessary to remark that there is nothing novel in the employment of mechanical dilatation for the relief of dysmenorrhœa. Mackintosh dilated the cervix uteri as early as 1826. Later the method was employed by Sir James Y. Simpson for various conditions and with variable results. Priestley, Ellinger, Busch, and others have recommended it, and have also devised various instruments to facilitate its success. Their instruments were, however, introduced closed and then forcibly separated, spreading open the cervix by the divergence of two or more branches. Then came the days of the sponge-tent, whose efficiency the elder Storer praised so highly; next the sea-tangle, and finally the tupelo tent. The method of dilating the uterus by tents is, however, open to the dangers of septic infection, hence numerous instruments have been devised, having for their object rapid or gradual dilatation without the dangers of sepsis. Peaslee first, then Hanks and some others in this country, and Lawson Tait and Hegar abroad, have presented us with graduated uterine dilators, made of metal or hard rubber, most of which answer admirably the purposes for which they are designed. Their methods of use are quite alike and may be briefly described as follows: The patient is placed upon the table in the

semi-prone position, and the Sims' speculum is introduced. The cervix should next be fixed with a double tenaculum, or a volsellum. I lay stress upon the method of the fixation of the cervix. The single tenaculum is not firm enough, and, besides, will often tear out during the process of dilatation. Emmet's or Hanks' double tenacula are well adapted for this use, and if I should express a preference for Emmet's instrument, it is because of being more accustomed to its use. When the cervix is firmly secured one of the smaller dilators is introduced and carried through the internal os; if this passes readily it is immediately withdrawn and the next larger size carried up, this process being repeated until considerable resistance is met with, when the dilator is allowed to remain a few moments *in situ* before attempting the next size. The extent of the dilatation required will of necessity vary considerably in different cases, but as a rule I should say that it need not be very great, particularly in cervices of large calibre, and this statement is based upon the observation of cases which I have met. The resistance, too, becomes less, speaking generally and within certain limits, as the dilatation advances, which circumstance indicates that the stretching need not be extreme to obtain relief. This process of dilatation may quite often be accomplished without the aid of an anæsthetic, but now and then the hyperæsthesia at the internal os is so great, and the resistance as a consequence so powerful, that in order to obtain the full benefits of the measure ether had best be given. A cotton tampon wet with glycerate of morphia, or other sedative, makes an appropriate dressing; rest in bed for a day or two, and in some cases even longer, is a most desirable precaution against cellulitis or other possible after-complications, and the hot vaginal douche, if properly used, may be made to play an important part in contributing to successful results.

Not every case of so-called spasmodic or neurotic

dysmenorrhœa will be cured by dilatation—it were too much to claim infallibility for any method—but I am sure that I speak within the limits of truth when I asseverate that a large number of cases will be entirely relieved of all suffering at the menstrual epoch, that still a very large number will undergo such a modification of their sufferings as to be rendered comparatively comfortable, while only a small minority will fail of any sort of benefit thereby.

Now, be it remembered, I am speaking of the benefits of dilatation in a class of cases wherein it has heretofore been considered an unnecessary procedure, by reason of the already tolerable calibre of the cervical canal, and the apparently unobstructed outlet for the menstrual flow, as indicated by the ready passage of the probe or sound. I present a case, if you please, which is free from abnormalties of position, both as to kind and degree, one which at all events is free from the complications of flexures; a case where the uterus is normal as to size and shape, and in which the relations of cervix and body are natural; a case where the os and cervix uteri are patent if not patulous, without any observable mechanical opposition to the egress of the catamenial fluid; and yet, nevertheless, a case which is subject to all the agonizing sufferings of dysmenorrhœa in its more aggravated form, accompanied by the reflex phenomena, few or many, with which we are all so familiar, and which are even more painful to endure than the agony of the disease itself. I present a case, moreover, which has resisted all the usual remedies, internal and external, which are ordinarily employed, but which I need not now enumerate; medicines and methods whose efficacy and relative value we can all attest and appreciate, and which, withal, have been employed with conceded skill and judgment, and a persistency never so relentless.

Here, then, is the case where I should confidently expect good results from dilatation; for in such a case,

I should be almost certain to find thickening and great hyperæsthesia of the structures about the inner os. Rejecting the theory of mechanical obstruction in the etiology of the case, we nevertheless have a somewhat analogous condition to that found by Dr. Otis in "strictures of larger calibre," and requiring a similar management for its relief. In a case like the one just described the tissues about the so-called *os uteri internum*, particularly those forming what I shall, for the sake of convenience of description, term its anterior lip, will, speaking generally, be found considerably thickened, even though there be no anteflexion, and this thickening will oftentimes extend downward along the anterior wall of the cervical canal in the shape of an inverted cone, the apex of which finally loses itself in the softer and more natural structures of the subjacent tissues of the cervix. This pyramidal-shaped body generally presents great resistance to the dilating instruments, becoming as it has of a hard and gristle-like formation, or presenting that sensation through the instrument to the operator whenever it is pressed upon with even moderate force. This leads me to remark, just here, that for such a case I prefer the conical vulcanite bougie of Hank's pattern, rather than the two-bladed expanding dilator; for the bougie makes pressure more directly upon the thickened and sensitive tissue, thereby more certainly relieving nerve-tension and more efficiently promoting absorption of the hypertrophic enlargement which seems to be the true seat of the neurosis.

How, then, let us inquire, do the dilators act in removing the head and front of all this offending? Though aware that it is much easier to ask questions than to answer them properly, I venture, in reply, to offer the suggestion that they act in a two fold way: First, by stretching out the nerve ends or filaments which have become entangled in the hypertrophic mass around the os internum their sensibility becomes so blunted that they do

not as readily take umbrage at the phenomena which occur during menstruation. The principle appears much the same as that in which nerve-stretching relieves ordinary neuralgias. Second, by pressure upon the thickened and hardened tissues partially surrounding the os, and extending downward along the cervical canal, they set up or promote absorption of the morbidly hypertrophied structures.

Can these results be expected to ensue from a single dilatation? Manifestly this is too much to hope for in every case, though it does no doubt take place in a few; at all events, they are relieved of the symptoms for which advice was sought, and as this is the desideratum aimed at by any or all methods, it must, perforce, be accepted as *prima facie* evidence of cure. More often, however, repeated dilatations will be found necessary in order to realize the best benefits of the method; and I wish to lay considerable stress upon the assertion, based as it is upon the cases which I have personally observed, that consecutive dilatation offers the better probabilities as to permanency of cure.

To rid myself of any possible misapprehension regarding the method of employing dilatation which has been most successful in my hands, let me briefly formulate its more salient points as a conclusion to this paper, even though it involve a repetition of some of its parts.

Given a case of neurotic dysmenorrhœa, occurring in either an unmarried or sterile woman, I should aim to make at least two appointments for the use of the dilators during each intermenstrual period, the last one to be not nearer than five days to the expected molimen. Commencing at each *séance* with such a bougie as will pass easily and without pain, one after another, of gradually increasing size, are introduced, until the limit of endurance on the part of the patient is reached, whereupon the dilator is allowed to remain *in situ* for ten or fifteen minutes. If sufficient stretching can be accom-

plished without an anæsthetic, well and good; but if not, then its employment is recommended.

By this process we not only overcome any spasmodic action which may lurk in the muscular fibres surrounding the internal uterine orifice, but, best of all, we bring that continuous pressure to bear upon the thickened cervical walls which exerts a most potent and material influence in promoting such tissue-changes as are required to make way with a malady which is laying the foundation for a chronic invalidism in too many young women of the land.

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